



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/695,089	10/25/2000	Takeshi Maeda	500.37445CX1	2432

20457 7590 03/14/2003

ANTONELLI TERRY STOUT AND KRAUS  
SUITE 1800  
1300 NORTH SEVENTEENTH STREET  
ARLINGTON, VA 22209

EXAMINER

CHU, KIM KWOK

ART UNIT

PAPER NUMBER

2653

DATE MAILED: 03/14/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	09/695,089	MAEDA ET AL.
	<b>Examiner</b>	Art Unit Kim-Kwok CHU 2653

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on Amendment filed on 1/2/03.
- 2a) This action is FINAL.      2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 7-16 and 19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 7-16 and 19 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

#### Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some \* c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                  | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____                                    |

***Response to Remarks***

1. Applicant's Remarks filed on January 2, 2003 have been fully considered but they are not persuasive.

(a) Applicant states that "Fuji does not disclose storing of a lookup table having information are recited in claims 7 and 8" (page 4 of Remarks, lines 15 and 16). Accordingly, Fuji teaches a pre-recorded mark pattern recording region 57 (Fig 2; column 4, lines 29-34) and a step to read it (Fig. 10. step 10). In other words, a pattern region is one form of Applicant's lookup table;

(b) Applicant states that the "lookup table does not have information of carrying out the edge shifting in accordance with a list of values which are determined by combinations of a length of a mark being currently written and at least one of a length of the space precedent and subsequent to the mark" (page 7 of the Remarks, lines 2-5). Accordingly, Lee in Fig. 6 discloses that a lookup table 2 which generates recording pulses data (column 7, lines 54-64). The recording pulse data drives the power controller 4 which generates pulses having edge shifting L1. L2, L3 etc. (Fig. 1A and 1B). Furthermore, the generated pulses such as L1, L2 and L3 have edge shifting in form of mark length, mark space as claimed by Applicant;

(c) Applicant states that "feature of the information stored is "non-functional" is in error" (page 4 of the Remarks,

last 3 lines). Accordingly, since Applicant discloses that information is stored in a lookup table, the stored information is for lookup/reference only. Therefore, the stored information is non-functional. Other form of lookup table such as the FAT of a disk, the TOC of a DVD containing tiles, subtitles and play times etc., security key stored in the disc are all considered as reference data which are non-functional information; and

(d) Applicant states that "the rejection does not include claim 8" (page 2 of the Remarks, last 2 lines). Accordingly, claim 8 is rejected similar to claims 7, 9-16 and 19 as indicated in the Office Action, on page 4, item 4.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

*(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.*

3. Claims 7, 9-16 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fuji (U.S. Patent 6,310,846) in view of Lee (U.S. Patent 5,241,524).

Fuji teaches a recording medium having elements and means very similar to that of the instant invention. For example, Fuji teaches the following:

- (a) as in claim 7, a disk-shaped substrate 40 (Fig. 4);
- (b) as in claim 7, at least one track being provided on the substrate (Fig. 6a1);
- (c) as in claim 7, a zone including at least one track (Fig. 8; a recording zone/area is an inherent feature of the recording medium 1); and
- (d) as in claim 7, the zone stores a lookup table 57 (Fig. 2; column 4, lines 28-33).

However, Fuji does not teach the following:

- (a) as in claims 7, 9-16 and 19, the lookup table includes a list of values about the wave form data of a recording pulse.

Lee teaches a look up table 2 which stores a list of pulse formation values such as pulse widths, length and intervals (Fig. 6; column 7, lines 54-64).

As in claims 7, 9-16 and 19, a look-up table as a form of data stored in a recording medium such as Applicant's and Fuji's is considered as a non-functional descriptive material. And it is obvious to store any type of data such as Applicant's and Fuji's non-functional descriptive material on a disk.

With respect to the type of data in a look-up table, for example, Lee uses a look up table to store non-functional

descriptive material such as a list of predetermined values of pulse widths, lengths and intervals etc. When there is a motivation of determining a predetermined shape of pulse/mark length, it would have been obvious to one of ordinary skill in the art at the time of invention to store Lee's mark length values in a look up table such as Fuji's, because the values of the mark length can be obtained instantly without going through a calculation process.

Furthermore, since Fuji stores a mark control pattern in his disk region 57, it would have been obvious to one of ordinary skill in the art to use a disk region similar to 57 as a look up table instead of Lee's RAM type lookup table, because hardware such as a RAM/ROM is not needed.

4. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fuji (U.S. Patent 6,310,846) in view of Lee (U.S. Patent 5,241,524).

Fuji teaches a recording medium having elements and means very similar to that of the instant invention. For example, Fuji teaches the following:

- (a) as in claim 8, a disk-shaped substrate 40 (Fig. 4);
- (b) as in claim 8, at least one track being provided on the substrate (Fig. 6a1);

(c) as in claim 8, a zone including at least one track (Fig. 8; a recording zone/area is an inherent feature of the recording medium 1); and

(d) as in claim 8, the zone stores a lookup table 57 (Fig. 2; column 4, lines 28-33).

However, Fuji does not teach the following:

(a) as in claim 8, the lookup table stores information about edge shifting of a recording pulse.

Lee teaches a look up table 2 which stores a list of pulse formation values such as pulse widths, length and intervals (Fig. 6; column 7, lines 54-64).

As in claim 8, a look-up table as a form of data stored in a recording medium such as Applicant's and Fuji's is considered as a non-functional descriptive material. And it is obvious to store any type of data such as Applicant's and Fuji's non-functional descriptive material on a disk.

With respect to the type of data in a look-up table, for example, Lee uses a look up table to store non-functional descriptive material such as a list of predetermined values of pulse widths, lengths and intervals etc. Other non-functional information such as Applicant's can be stored as well.

When there is a motivation of determining a predetermined shape of pulse/mark length, it would have been obvious to one of ordinary skill in the art at the time of invention to store Lee's

mark length values or Applicant's edge shifting information in a look up table such as Fuji's, because the values of the mark length or edge shifting can be obtained instantly without going through a calculation process.

Furthermore, since Fuji stores a mark control pattern in his disk region 57, it would have been obvious to one of ordinary skill in the art to use a disk region similar to 57 as a look up table instead of Lee's RAM type lookup table, because hardware such as a RAM/ROM is not needed.

#### **Prior Art**

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

DeMartin et al. (6,226,672) is pertinent because DeMartin teaches a TOC.

Aramaki (5,889,745) is pertinent because Aramaki teaches a TOC.

Takeda et al. (4,760,526) is pertinent because Takeda teaches a TOC.

09/695,089  
AU 2653

page 8

6. Any response to this action should be mailed to:

Commissioner of Patents and Trademarks Washington, D.C.  
20231 Or faxed to:

(703) 872-9314 (for formal communications intended for entry. Or:

(703) 746-6909, (for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2021 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

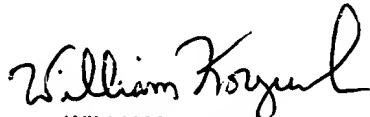
Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-4700.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kim CHU whose telephone number is (703) 305-3032 between 9:30 am to 6:00 pm, Monday to Friday.

kc 3/7/03

Kim-Kwok CHU  
Examiner AU2653  
March 7, 2003

(703) 305-3032

  
WILLIAM KORZUCH  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600